

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2005/000111

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F16K31/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16K E21B H02K B63C B63B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/011580 A1 (JOHANSEN JOHN A ET AL) 31 January 2002 (2002-01-31)	1-4,6-9
Y	column 5, line 28 - column 7, line 60; figures	5
Y	GB 2 198 766 A (* K E INTERNATIONAL LIMITED) 22 June 1988 (1988-06-22) figure 6	5
X	US 5 447 078 A (ROBINSON, JR. ET AL) 5 September 1995 (1995-09-05) figures 1,2	1
X	US 3 324 875 A (ANDERSON CLIFFORD E) 13 June 1967 (1967-06-13) figure 1	1
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

28 April 2005

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13/05/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>US 5 166 677 A (SCHOENBERG ET AL) 24 November 1992 (1992-11-24) figures 1,2</p> <p>-----</p>	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
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			GB	2364396 A , B	23-01-2002
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